

Claims

1. A low-molecular-weight substance detection instrument employing immunochromatography, comprising a test sample application section with which a test sample is brought into contact, wherein a target substance contained in the test sample brought into contact with the test sample application section is detected by use, as an index, of a labeling substance employed in a label product containing, as a portion thereof, an antibody capable of binding to the target substance contained in the test sample.

2. A low-molecular-weight substance detection instrument according to claim 1, which comprises 1) a test sample application section with which a test sample is brought into contact; 2) a label product reaction section containing a label product containing, as a portion thereof, an antibody capable of binding to a target substance contained in the test sample, the label product being not bound to the reaction section; 3) an unbound label product capturing section containing an element capable of capturing the label product which is not bound to the target substance, the element being bound to the capturing section; and 4) a detection section containing a detection element which, when coming into contact with the target substance bound to the label product, causes a visually observable change.

3. A low-molecular-weight substance detection instrument according to claim 1, wherein a test sample is

reacted with a labeled antibody containing, as a portion thereof, an antibody capable of binding to a target substance contained in the test sample, and the resultant reaction product is employed for detecting the target substance contained in the test sample.

4. A low-molecular-weight substance detection instrument according to claim 3, which comprises the following 1) and 2):

1) an unbound labeled antibody capturing section containing an element capable of capturing the labeled antibody which is not bound to the target substance, the element being bound to the capturing section; and

2) a detection section containing a detection element which, when coming into contact with the target substance bound to the labeled antibody, causes a visually observable change.

5. A low-molecular-weight substance detection instrument according to claim 2 or 4, wherein the detection element contained in the detection section is metallic colloidal particles or latex particles.

6. A low-molecular-weight substance detection instrument according to claim 2 or 4, wherein the detection element contained in the detection section is bound to the detection section.

7. A low-molecular-weight substance detection instrument according to claim 2 or 4, wherein the element capable of capturing the label product which is not bound to

the target substance, which is contained in the unbound label product capturing section, is the target substance or a substance similar to the target substance.

8. A low-molecular-weight substance detection instrument according to claim 2 or 4, wherein each of the unbound label product capturing section and the detection section comprises, as a base, a carrier fixated onto a porous membrane for chromatography.

9. A low-molecular-weight substance detection instrument according to any of claims 1 through 8, wherein the target substance is a dioxin and/or a PCB.

10. A method of using a low-molecular-weight substance detection instrument as recited in claim 3, which comprises bringing, into contact with the test sample application section, a reaction product formed from a test sample and a labeled antibody containing, as a portion thereof, an antibody capable of binding to a target substance contained in the test sample; and detecting a complex of the labeled antibody and the target substance, the complex being contained in the reaction product, and/or the labeled antibody which is not bound to the target substance, to thereby detect the target substance contained in the test sample.

11. A low-molecular-weight substance detection set comprising a low-molecular-weight substance detection instrument as recited in any of claims 1 through 9, and a labeled antibody containing, as a portion thereof, an

antibody capable of binding to a target substance contained in a test sample.

12. A low-molecular-weight substance detection set according to claim 11, wherein the labeled antibody containing, as a portion thereof, an antibody capable of binding to a target substance contained in a test sample is maintained in a dry condition.